Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-28 (Cancelled)

29. (Currently Amended) A pharmaceutical composition comprising:

(i) a pTV2 or pCK plasmid construct comprising a promoter operably linked to a nucleotide sequence encoding a C-terminally truncated human Her-2/neu protein, said protein consisting ~~essentially~~ of a signal peptide, the entire extracellular domain and transmembrane domain of Her-2/neu[[[,]]] or a signal peptide and the entire extracellular domain of Her-2/neu; and

(ii) an adjuvant.

30. (Currently Amended) The pharmaceutical composition ~~plasmid construct~~ of claim 29, wherein said truncated Her-2/neu protein consists ~~essentially of the~~ of a signal peptide, the entire extracellular domain and transmembrane domain of Her-2/neu ~~encoded by SEQ ID NO: 2~~.

31. (Withdrawn, Currently Amended) The pharmaceutical composition ~~plasmid construct~~ of claim 29, wherein said truncated Her-2/neu protein consists ~~essentially of the~~ of a signal peptide and the entire extracellular domain of Her-2/neu ~~encoded by SEQ ID NO: 3~~.

32. (Currently Amended) The pharmaceutical composition ~~plasmid construct~~ of claim 30 [[29]], wherein said nucleotide sequence encoding a truncated human Her-2/neu protein comprises SEQ ID NO: 2.

33. (Currently Amended) The pharmaceutical composition ~~plasmid construct~~ of claim 29, wherein said pTV2 plasmid construct is $pNeu_{TM}$ deposited at the Korean Culture Center of Microorganisms (KCCM) under the accession number KCCM-10393 and wherein said pCK plasmid construct is pCK_{TM} deposited at the KCCM under the accession number ~~KCCM-10396~~ KCCM-10395.

34. (Currently Amended) The pharmaceutical composition ~~plasmid construct~~ of claim 29, ~~which further~~ wherein said adjuvant comprises a nucleotide sequence encoding a cytokine.

35. (Currently Amended) The pharmaceutical composition ~~plasmid construct~~ of claim 34, wherein said cytokine is granulocyte-macrophage colony-stimulating factor (GM-CSF).

36. (Currently Amended) The pharmaceutical composition ~~plasmid construct~~ of claim 34, wherein ~~the~~ said nucleotide sequence encoding said truncated human Her-2/neu protein and ~~the~~ said nucleotide sequence encoding said cytokine are situated as a bicistronic construct, separated by an internal ribosomal entry site (IRES).

37. (Currently Amended) The pharmaceutical composition ~~plasmid construct~~ of claim 36, which comprises pCK_{TM}-GMCSF.

38-43. (Cancelled)

44. (Currently Amended) The pharmaceutical composition of claim 34 [[42]], wherein said nucleotide sequence encoding a truncated Her-2/neu protein and said nucleotide sequence encoding a cytokine are on separate plasmids.

45. (Currently Amended) The pharmaceutical composition of claim 34 [[42]], wherein said nucleotide sequence encoding a truncated Her-2/neu protein and said nucleotide sequence encoding a cytokine are on the same plasmid.

46. (Cancelled)

47. (Currently Amended) A method for preventing or treating cancer comprising intramuscularly administering an effective amount of the pharmaceutical composition of claim 29 [[38]] to a mammal in need of prevention or treatment of a Her-2/neu-over-expressing human cancer, wherein said mammal develops an immune response to Her2/neu protein thereby preventing or treating a Her-2/neu-over-expressing human cancer.

48. (Original) The method of claim 47, wherein said cancer is breast cancer or ovary cancer.

49-60. (Cancelled)

61. (New) The method of claim 47, wherein said mammal is human.

62. (New) The pharmaceutical composition of claim 29, wherein said plasmid construct is a pTV2 plasmid construct.

63. (New) The pharmaceutical composition of claim 29, wherein said plasmid construct is a pCK plasmid construct.

64. (New) The method of claim 48, wherein said cancer is breast cancer.

65. (New) The method of claim 48, wherein said cancer is ovary cancer.

66. (New) A method of inducing anti-Her-2/neu immunity in a mammal, comprising intramuscularly administering to a mammal in need of prevention or treatment of a Her-2/neu-over-expressing human cancer an effective amount of the pharmaceutical composition of claim 29; wherein said mammal develops an immune response to Her-2/neu protein, thereby inducing anti-Her-2/neu immunity in said mammal.

67. (New) The method of claim 66, wherein said cancer is breast cancer or ovary cancer.

68. (New) The method of claim 67, wherein said cancer is breast cancer.

69. (New) The method of claim 68, wherein said cancer is ovary cancer.

70. (New) The method of claim 66, wherein said immunity comprises production of Her-2/neu-specific antibodies, or a CTL response to Her-2/neu.

71. (New) The method of claim 48, wherein said mammal is human.

72. (New) A method of reducing Her-2/neu over-expressing tumor growth in a mammal, comprising intramuscularly administering to a mammal in need of treatment of a Her-2/neu-over-expressing human cancer an effective amount of the pharmaceutical composition of claim 29; wherein said mammal develops an immune response to Her-2/neu protein thereby reducing Her-2/neu over-expressing tumor growth in said mammal.

73. (New) The method of claim 72, wherein said cancer is breast cancer or ovary cancer.

74. (New) The method of claim 73, wherein said cancer is breast cancer.

75. (New) The method of claim 73, wherein said cancer is ovary cancer.

76. (New) The method of claim 72, wherein said tumor is a solid tumor.

77. (New) The method of claim 72, wherein said mammal is human.